Appendix G

G.0 Recommended Special Management Actions For the Recovery of the Ash Meadows Gumplant (*Grindelia fraxino-pratensis*) and Amargosa Niterwort (*Nitrophila mohavensis*)¹

G.1 Introduction

G.1.1 Ash Meadows Gumplant

The Ash Meadows gumplant (*Grindelia fraxion-pratensis*) was published in the Federal Register Notice of Review on 1 July 1975 as threatened (40 FR 27861) and in the 15 December 1980 Notice as Category I: taxa to be considered for threatened or endangered status (45 FR 82512). It was listed as Rare and Endangered by the California Native Plant Society and Endangered by the Northern Nevada Native Plant Society in 1980. This plant was also listed as California State Endangered in 1979 and federally listed as Endangered in 1985.

The Ash Meadows gumplant is an erect biennial or perennial herbaceous plant that is approximately 5-12 decimeters (dm) tall with one to several stems arising from a woody root-stock. The stems are light to reddish brown, glabrous, leafy and branched in their upper halves. The dark green leathery resin-coated leaves are narrow, about 2-7 centimeters (cm) long and 5-12 millimeters (mm) wide and are somewhat sticky to the touch. The basal leaves are longer and wider than the stem leaves. The leaf margin is entire to somewhat toothed at the tip. The inflorescence is openly branched with several heads on the terminal branchlets with head width ranging from 8-10 mm. The involucres are 7-9 mm tall with overlapping resin-dotted phyllaries 3-7 mm long. Ray flowers are mostly 13 in number, golden to lemon yellow and 7-9 mm long. Disk flowers are golden yellow and 4-5 mm long. In bud, the disk flowers are covered with a white gum-like substance; hence, the name gumplant. The achenes are 2.5 - 3.5 mm long that bear two stout awns that are approximately 3-4 mm long. Little is known about this species' life history or habitat requirements due to its limited distribution and individual occurrences.

G.1.2 Amargosa Niterwort

The Amargosa niterwort (*Nitrophila mohavensis*) was published in a Notice of Review on 1 July 1775 (40 FR 27833) as Endangered and was proposed as Endangered on 16 June 1976 (41 FR 24539). This plant was California State listed as Endangered in 1979 and federally listed as Endangered in 1980

The Amargosa niterwort is a low, long-lived erect plant from thick underground roots. It reaches heights up to 8 cm. The leaves are small, approximately 2-3 mm long, thick, fleshy and bright green. They are densely arranged along a reddish-colored stem. The flowers are small and frequently hidden among the upper leaves. The petal-like segments on the flowers are rose-colored when fresh and approximately 2 mm long. When the segments become dry, they are brownish in color and somewhat papery to the touch. The anthers are small and 5 in number. The fruit is small and round, with black shiny seeds.

¹ Both of these species are on the Center for Plant Conservation's list of species expected to become extinct within ten years.

G.2 Objectives

The objective is to minimize the threats that imperil the Ash Meadows gumplant and Amargosa niterwort so that these species can be downlisted. These plants may be proposed for downlisting when their populations and the wetland ecosystem on which they are dependent within the Carson Slough and other habitat in Nevada are secure and self-perpetuating.

Recovery efforts should occur on the following sites:

- Public lands administered by the BLM in the Carson Slough area. The Ash Meadows gumplant is known in only two sites, one in Nye County, Nevada and the other in the Carson Slough area of Inyo County, California, in close proximity to the Amargosa niterwort. The Amargosa niterwort is known on a single site (see Chapter 7, Figure 10) on the southwestern edge of Ash Meadows region just west of the Nevada state line in extreme southeastern Inyo County, California, at the Amargosa River drainage (Carson Slough) about three miles northeast of Death Valley Junction.
- Water sources required to perpetuate these areas should be secured and managed.

Specific recommendations, requirements and tasks include:

- Implement short-term actions critical for the near term survival of the Ash Meadows gumplant and Amargosa niterwort.
 - Identify habitat and source water on private, The Nature Conservancy, state and federal lands.
 - i. Identify habitat
 - ii. Identify groundwater sources and springs
- Identify and preclude present or threatened destruction, modification, or curtailment of habitat or range.
 - Reduce the major threat from the reduction of free-flowing water through the Carson Slough currently being diverted for farming activities.
 - Reduce the threat of grazing and trampling by horses (both feral and owned).
 - Reduce the threat from the increase of off-road vehicle activities.
 - Reduce the threat to the environment of, and possible type conversion from non-native, weedy, species.

The above mentioned existing threats are all expected to continue for some time into the future and can be considered potential threats for more populations than are currently impacted.

- Identify and implement measures to protect public land populations.
 - Develop ACEC management strategy within three years.
 - Integrate strategy with the Amargosa River ACEC management planning to address watershed, water quantity and related issues.